Work Order ID 120781

Wednesday, June 11, 2014 10:32:40 AM

120781

Item ID: D4634-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Fwd, Center Ceiling Panel

Start Date: 7/02/14 **Start Qty:** 1.00 *1*

Required Date: 7/02/14 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** ✓ **Date:** 14-6-11 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Draw Nbr	Revision Nbr
D4634	F

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100		0.00							DAS 07 9-89
100	HAND FINISHING THERMOFORMING					X1			
Thermoform	**Memo**	0.00							14/06/16
Thermoforming Machine	Cut Blanks								
105		0.00							DAS 07 9-89
105	Dry Material					X1			
HandThermo	**Memo**	0.00							14/06/16
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE								

Temp: 245 deg. F JUN 16 2014

Time IN: 5:00 PM

Time OUT: 6:00 AM Per.....

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function

☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence

☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

Item ID: D4634-1 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Fwd, Center Ceiling Panel
Start Date: 7/02/14 **Start Qty:** 1.00 *1*
Required Date: 7/02/14 **Req'd Qty:** 1.00 *1*
Reference:
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							DAS 07 9-89
110	THERMOFORMING MACHINE					X(			
Thermoform	**Memo**	0.00							14/06/14
Thermoforming Machine	Thermoform as per Dwg. D4634-1 and Folio FTA144								
	Dwg. Rev. F								
	Folio Rev. E								
	NOTE: Check moulds prior to using to ensure proper placement of add-ons.								
	Visually inspect for proper formation and texture								
130		0.00							
130	HAND FINISHING THERMOFORMING					y l			BB 14/07/14
Thermoform	**Memo**	0.00							
Thermoforming Machine	Trim to Finished Dimensions								

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

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Work Order: _____

Part No. _____

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DISPOSITION

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Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
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Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

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☐ Weld
☐ Wrong Stock Pulled
☐ Other

Item ID: D4634-1 **Accept** *N900040100* **Setup Start** *NS1*
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Item Name: Fwd, Center Ceiling Panel
Start Date: 7/02/14 **Start Qty:** 1.00 *1*
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Reference:
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	~~QC6~~ QC5 Inspect dimensions to drawing	0.00							
140	Dimensional Inspection		DAS 16 9-89	relocate					
QC	**Memo**	0.00							
Quality Control	Fill in Inspection Sheet Rev A								
150	QC5 Inspect part completeness to step on W/O	0.00	~~DAS 16 9-89~~ N/A						
150									
QC	**Memo**	0.00							
Quality Control									
160		0.00							
160	Packaging								
Packaging	**Memo** Section MF	0.00							
Packaging						(1) SAO	14/07/16		

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☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Picklist Print

Wednesday, June 11, 2014 10:32:39 AM

Work Order ID: 120781

120781

Parent Item: D4634-1

D4634-1

Parent Item Name: Fwd, Center Ceiling Panel

Start Date: 7/02/14 **Required Date:** 7/02/14

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev.A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B Dwg. Update 13/07/09 DL verf:DD IPP Rev C Dwg Update, Material Change 13/12/18 DL IPP Rev D Dwg Update Change Mtl Qty. 14/01/20 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	1,148.443	17.3	18			DAS 07 9-89
MLEXS.093-F6006-07									**				

GE PLASTICS LEXAN SHEET (Grey)

14/06/17

Location	Loc Qty	Loc Code
MAT023	1148.44332	
114459	229.26	
123105	38	
124501	543.5	
m128668	181.35	
m129014	156.33332	

129471

18 sq ft

DQA: _____ Date: _____

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DART AEROSPACE

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Supplier	☐									
Training	☐									
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Unapproved	☐									

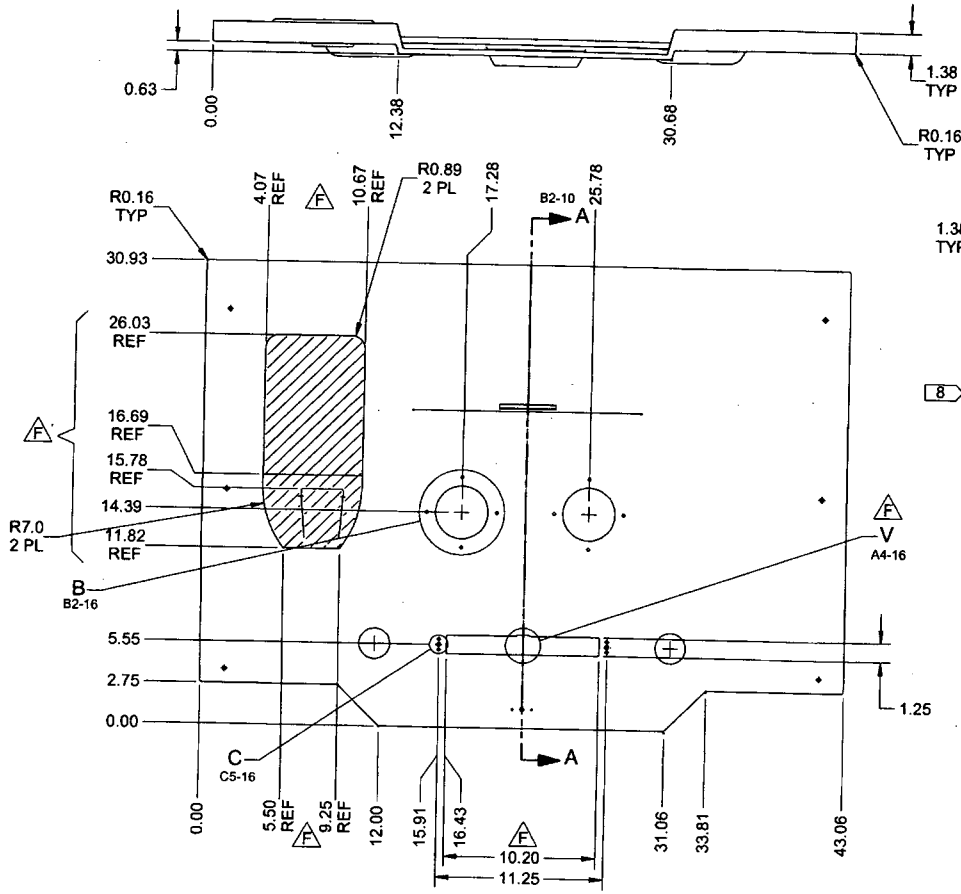
FAULT CATEGORY

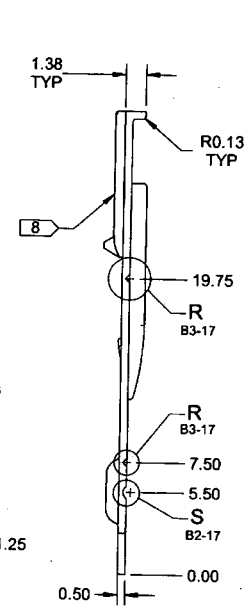
Landing Gear

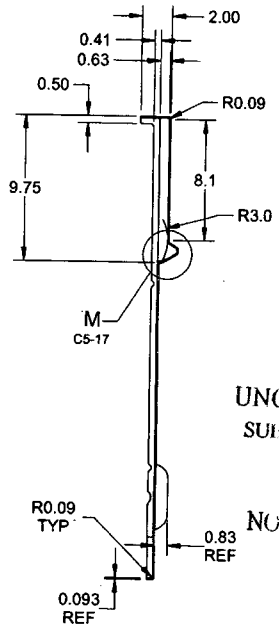
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☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other _____







SECTION A-A C6-10

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 120781 00
14-6-11

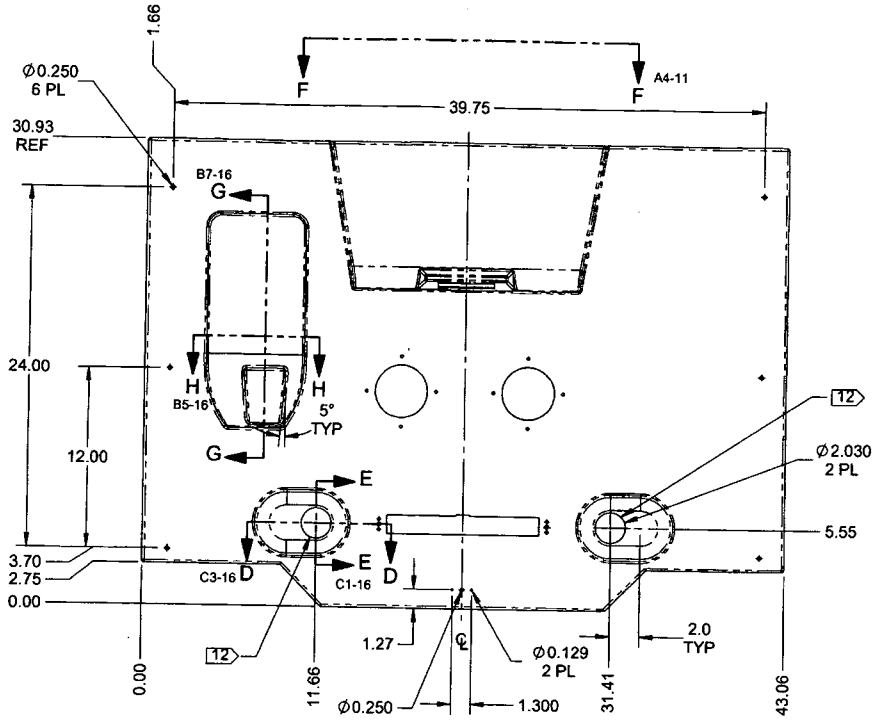
NOTES:
1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-07)
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 5.65 lbs
8) TEXTURE ON THIS SIDE
9) 0.14 RADIUS NOT SHOWN FOR CLARITY
10) DRILL & TRIM D4634-1 PER TOOL DT9836
11) THERMOFORM PER QSI 022 USING DT9844 TOOL
MIN. THICKNESS AFTER FORMING:
SHADED AREA = 0.020
EDGES = 0.060
ELSEWHERE = 0.070
12) LOCATE ⌀2.030 AT CENTER OF PROTRUDED SURFACE AS SHOWN

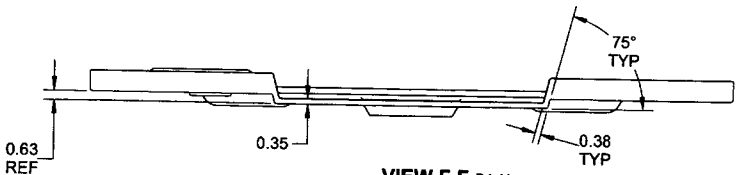
D4634-1 FWD, CENTER CEILING PANEL

RELEASED
2014 FEB 25

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED		DRAWING NO. D4634 REV. F
MFG. APPR.		SHEET 10 OF 17
APPROVED		TITLE CENTER CEILING PANELS SCALE NTS
DE APPR.		
DATE	14.02.03	

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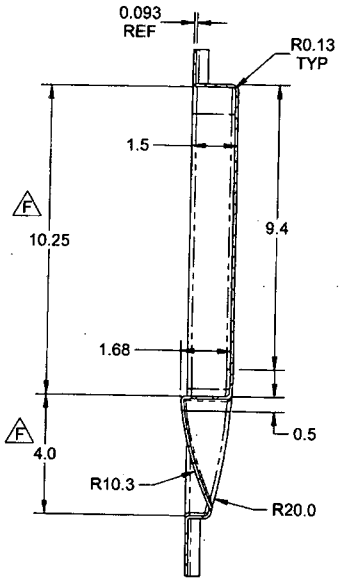
VIEW F-F D4-11

D4634-1 FWD, CENTER CEILING PANEL
AUXILIARY VIEW

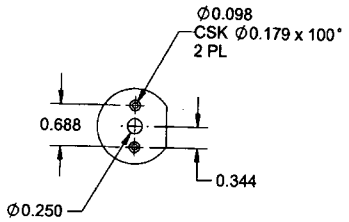
RELEASED
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DRAWN	RF	
CHECKED		DRAWING NO. D4634 REV. F
MFG. APPR.		SHEET 11 OF 17
APPROVED		TITLE CENTER CEILING PANELS SCALE NTS
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DATE	14.02.03	

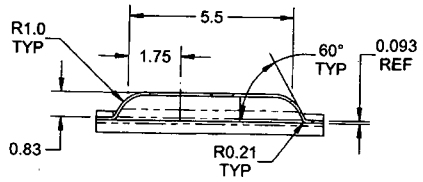
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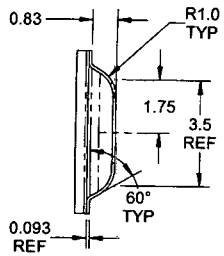
SECTION G-G C5-11
SCALE 4X



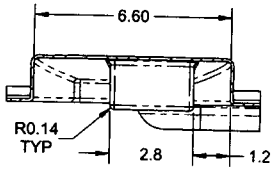
DETAIL C B7-10 B4-12 B4-14
SCALE 4X



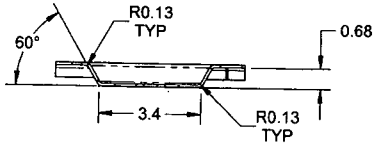
SECTION D-D B6-11 C4-13 C4-15
SCALE 2X



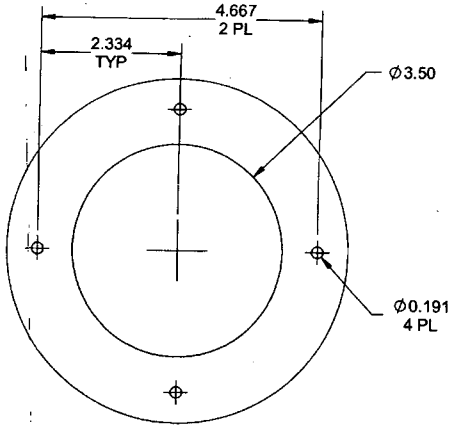
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SCALE 4X



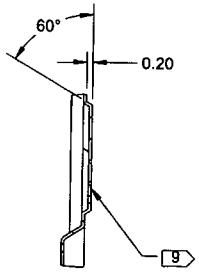
SECTION H-H C5-11
SCALE 2X



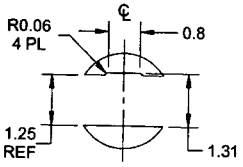
SECTION J-J B6-13
SCALE 2X



DETAIL B B7-10
SCALE 4X
2 PL



DETAIL L B2-13 C2-13 B2-14 C2-14
SCALE 4X
TYP

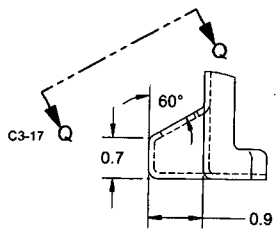


Ⓕ **DETAIL V** C4-10 B4-12 C4-14
SCALE 2X
SIMILAR

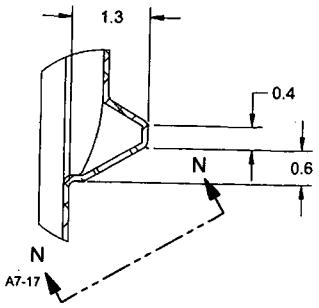
RELEASED
2014 FEB 25

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	DRAWING NO. D4634 REV. F
CHECKED		SHEET 16 OF 17
MFG. APPR.		TITLE CENTER CEILING PANELS SCALE NTS
APPROVED		
DE APPR.		
DATE	14.02.03	

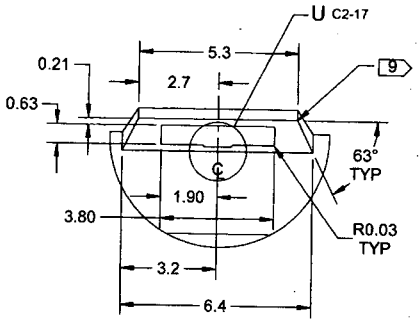
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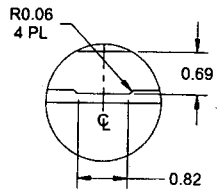
DETAIL P B3-14
SCALE 2X



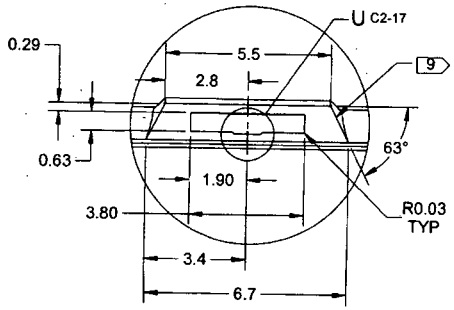
DETAIL M C3-10
SCALE 2X



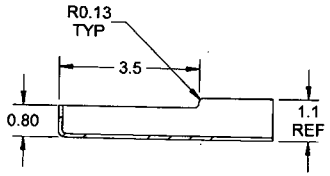
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SCALE 0.5X



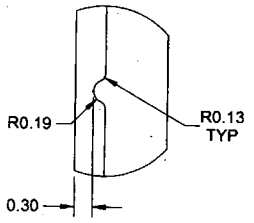
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SCALE 0.5X



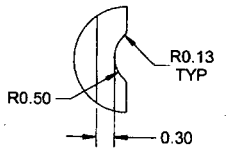
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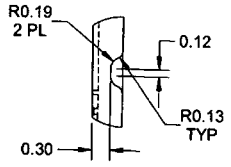
SECTION O-O B6-14
SCALE 1.3X



DETAIL R B3-10 C3-10 B2-12
SCALE 4X



DETAIL S B3-10 C2-12
SCALE 4X



DETAIL T C2-14
SCALE 4X

RELEASED
2014 FEB 25

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	DRAWING NO. D4634 REV. F
CHECKED	BC	SHEET 17 OF 17
MFG. APPR.		TITLE CENTER CEILING PANELS SCALE NTS
APPROVED		
DE APPR.		
DATE	14.02.03	

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DART AEROSPACE

Description: Fwd Center Ceiling Panel	Work Order: 120781
Inspection Drawing: 4634-1 Rev: F	Part Number: D4634-1

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.00	+/-0.030	12.00	✓		M-T	SFAB-21
24.00	+/-0.030	24.00	✓		"	↓
39.75	+/-0.030	39.75	✓		"	
11.66	+/-0.030	11.66	✓		"	
31.41	+/-0.030	31.41	✓		"	↓
1.300	+/-0.010	1.300	✓		Vern	SFAB-08
Ø0.250	+0.005 -0.001	Ø0.250	✓		↓	↓
Ø2.030	+0.002 -0.001	Ø2.030	✓			
4.667	+/-0.010	4.667	✓			
2.334	+/-0.010	2.234	✓			
Ø3.50	+/-0.010	Ø3.50	✓			
Ø0.191	+/-0.005 -0.001	Ø0.191	✓			
3.80	+/-0.030	3.80	✓			
0.63	+/-0.030	0.63	✓		↓	
1.25	+/-0.030	1.25	✓		"	↓
10.20	+/-0.030	10.20	✓		M-T	SFAB-21
11.25	+/-0.030	11.25	✓		"	"

Measured by: SAD	Checked By: DAS 16 9-89	QC inspector: DAS 16 9-89	Engineering Approval (*if necessary*):
Date 14/07/16	Date 14/07/16	Date 14/07/16	Date